UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,284	07/18/2003	Pohsiang Hsu	3382-66128	4607

26119   7590   07/02/2007
KLARQUIST SPARKMAN LLP
121 S.W. SALMON STREET
SUITE 1600
PORTLAND, OR 97204

EXAMINER
PATEL, JAYESH A

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
07/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/622,284	HSU ET AL.
	Examiner	Art Unit	
	Jayesh A. Patel	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1- 88* is/are pending in the application.

    4a) Of the above claim(s) *1-20 and 33-59* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-32 and 60-88* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *05/07,03/06,07/04*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail. Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. Applicant's response in view of the Restriction/Election dated 04/30/2007 has

been entered and made of record.

2. In view of the election Claims 21-32 and 60-88 will be examined.

3. Claims 1-20 and 33-59 have been cancelled and will not be considered for

further prosecution.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21-25,60-68, and 76-82 are rejected under 35 U.S.C. 102(b) as being

anticipated by Eifrig et al. (US 5974184) hereafter Eifrig.

4. Regarding Claim 21, Eifrig discloses a method of decoding **(Fig 6)** a field-

coded macroblock comprising an intra-coded field and a second field, the method

comprising: finding a DC differential for a current block in the intra-coded field

(Col 12 Lines 67); finding a DC predictor for the current block (Col 13 Line 1);

and obtaining a DC value for the current block, wherein the obtaining comprises

adding the DC predictor to the DC differential at (Col 12 Lines 66-67 and Col 13

Lines 1-2); wherein the intra-coded field is decoded independently from the

second field as the decoding is taking place in the same frame (Fig 2).

5. Regarding Claim 22, Eifrig discloses a method of decoding (Fig 6) a field-

coded macroblock comprising an intra-coded field and a second field, the method

comprising: finding a DC differential for a current block in the intra-coded field

(Col 12 Lines 67); selecting a DC predictor from a group of candidate DC

predictors at (Col 13 Lines 35-38), wherein the group of candidate DC predictors

comprises DC values from blocks adjacent to the current block at (Col 13 Lines

39-41), wherein a candidate DC predictor is a missing candidate DC predictor if

the candidate DC predictor is not intra-coded, and wherein the selected DC

predictor is a non-missing candidate DC predictor (Col 13 Lines 28-34); and

obtaining a DC value for the current block, wherein the obtaining comprises

adding the selected DC predictor to the DC differential (Col 12 Lines 66-67 and

Col 13 Lines 1-2).

6. Regarding claim 23, Eifrig discloses the method of claim 22 wherein the

selected DC predictor comprises a DC value from a previously decoded block at

(Col 13 Lines 35-41).

7. Regarding Claim 24, Eifrig discloses the method of claim 22 wherein a

candidate DC predictor is a missing candidate DC predictor if the candidate DC

predictor is outside a picture boundary at **(Col 13 Lines 28-34)**.

8. Regarding Claim 25, Eifrig discloses the method of claim 22 wherein the

blocks adjacent to the current block are the top, top-left and left adjacent blocks

at **(Col 13 Lines 40-41)**.

9. Regarding Claim 60, Eifrig discloses the method of claim 21 wherein the

finding the DC differential comprises decoding an encoded DC differential at **(Col**

12 Lines 61-63 and 66-67).

10. Regarding Claim 61, Eifrig discloses the method of claim 22 wherein the

finding the DC differential comprises decoding an encoded DC differential at **(Col**

12 Lines 61-63 and 66-67).

11. Claim 62 is a corresponding CRM Claim of the Claim 21. See the

explanation of claim 21 and also **(Figs 6 and 7)**.

12. Claim 63 is a corresponding CRM Claim of the Claim 60. See the explanation

of claim 60 and also **(Figs 6 and 7)**.

13. Claim 64 is a corresponding CRM Claim of the Claim 22. See the explanation of claim 22 and also **(Figs 6 and 7)**.

14. Claim 65 is a corresponding CRM Claim of the Claim 60. See the explanation of claim 60 and also **(Figs 6 and 7)**.

15. Claim 66 is a corresponding CRM Claim of the Claim 23. See the explanation of claim 23 and also **(Figs 6 and 7)**.

16. Claim 67 is a corresponding CRM Claim of the Claim 24. See the explanation of claim 24 and also **(Figs 6 and 7)**.

17. Claim 68 is a corresponding CRM Claim of the Claim 25. See the explanation of claim 25 and also **(Figs 6 and 7)**.

18. Claim 76 is a corresponding System claim of the method of claim 21. See the explanation of claim 21 and also see **(fig 6)** where the means is a decoder to perform the function of claim 76.

19. Claim 77 is a corresponding System claim of the method of claim 21. See the

explanation of claim 21 and also see **(fig 6 and Col 12 Lines 61-63 and 66-67)**

where the means is a decoder to perform the function of claim 77.

20. Claim 78 is a corresponding System claim of the method of claim 22. See the

explanation of claim 22 and also see **(fig 6)** where the means is a decoder to

perform the function of claim 78.

21. Claim 79 is a corresponding System claim of the method of claim 22. See the

explanation of claim 22 and also see **(fig 6)** where the means is a decoder to

perform the function of claim 79.

22. Claim 80 is a corresponding System claim of the method of claim 23. See the

explanation of claim 23 and also see **(fig 6)** where the means is a decoder to

perform the function of claim 80.

23. Claim 81 is a corresponding System claim of the method of claim 24. See the

explanation of claim 24 and also see **(fig 6)** where the means is a decoder to

perform the function of claim 81.

24. Claim 82 is a corresponding System claim of the method of claim 25. See the

explanation of claim 25 and also see **(fig 6)** where the means is a decoder to

perform the function of claim 82.

Claims 26- 30,69-73 and 83-86 are rejected under 35 U.S.C. 102(e) as being

anticipated by Jeng (US 20040141654) hereafter Jeng.

25. Regarding Claim 26, Jeng discloses a computerized method of encoding an

interlaced macroblock **(Figs 3-5)**, the method comprising: performing DC

prediction for a current block in the interlaced macroblock in **(Fig 3 Element**

301), wherein the DC prediction comprises adding a selected DC predictor for

the current block to a DC differential at **(Page 1 Para 0013)**; and selectively

enabling AC prediction for blocks in the macroblock **(Page 1 Para 0013)**.

26. Regarding Claim 27, Jeng discloses the method of claim 26 wherein the AC

prediction is enabled, and wherein AC coefficients are selected for differential

coding based on the selected DC predictor for the current block **(Page 1 Para**

0012 and 0013).

27. Regarding Claim 28, Jeng discloses the method of claim 27 wherein, if no DC

predictor is used, no AC coefficients are selected for differential coding in **(Fig 3**

Element 302 and Page 5 Para 0061). Jeng discloses using an alternate scan depending on the results of the DC/AC prediction Block 301.

28. Regarding Claim 29, Jeng discloses the method of claim 26 further Comprising, in a bit stream, signaling whether AC prediction is enabled for blocks in the macroblock at **(Fig 3 Element 302 and Page 5 Para 0061).**

29. Regarding Claim 30, Jeng discloses the method of claim 29 wherein the macroblock is a frame macroblock, and wherein the signaling comprises sending a one-bit flag indicating whether AC prediction is performed for all blocks in the frame macroblock at **(Fig 3 Element 302 and Page 5 Para 0061).**

30. Claim 69 is a corresponding CRM Claim of the Claim 26. See the explanation of claim 26 and also **(Figs 3-5).**

31. Claim 70 is a corresponding CRM Claim of the Claim 27. See the explanation of claim 27 and also **(Figs 3-5).**

32. Claim 71 is a corresponding CRM Claim of the Claim 28. See the explanation of claim 28 and also **(Figs 3-5).**

33. Claim 72 is a corresponding CRM Claim of the Claim 29. See the explanation of claim 29 and also **(Figs 3-5)**.

34. Claim 73 is a corresponding CRM Claim of the Claim 30. See the explanation of claim 30 and also **(Figs 3-5)**.

35. Claim 83 is a corresponding System claim of the method of claim 26. See the explanation of claim 26 and also see **(fig 3)** where the means is an encoder to perform the function of claim 83.

36. Claim 84 is a corresponding System claim of the method of claim 27. See the explanation of claim 27 and also see **(fig 3)** where the means is an encoder to perform the function of claim 84.

37. Claim 85 is a corresponding System claim of the method of claim 29. See the explanation of claim 29 and also see **(fig 3)** where the means is an encoder to perform the function of claim 85.

38. Claim 86 is a corresponding System claim of the method of claim 30. See the explanation of claim 30 and also see **(fig 3)** where the means is an encoder to perform the function of claim 86.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 31-32,74-75 and 87-88 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Eifrig in view of Jeng.

39. Regarding Claim 31, Jeng discloses the method of claim 29. Jeng also

discloses a macroblock and is silent wherein the interlaced macroblock is a field

macroblock. Eifrig discloses wherein the interlaced macroblock is a field

macroblock in **(Fig 2)**. Eifrig further discloses wherein the signaling comprises

sending a one-bit flag indicating whether AC prediction is performed for blocks in

a first field in the field macroblock at **(Col 12 Lines 9-35)**. Eifrig discloses that the

field macroblock may be reordered or non-reordered field mode at **(Col 2 Lines**

19-26). Both Jeng and Eifrig are from the same field of endeavor, therefore it

would have been obvious for one of ordinary skill in the art at the time the

invention was made to have used the teachings of the Eifrig in the method and

apparatus of Jeng for the above reasons.

40. Regarding Claim 32, see the explanation of claim 31 and **(Fig 2)**. The fig shows the prediction performed in the first and the second fields.

41. Claim 74 is a corresponding computer readable medium claim of claim 31; see the explanation of claim 31.

42. Claim 75 is a corresponding computer readable medium claim of claim 32; see the explanation of claim 32.

43. Claim 87 is a corresponding system claim of the claim 31; see the explanation of claim 31.

44. Claim 88 is a corresponding system claim of the claim 32; see the explanation of claim 32.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jayesh A. Patel whose telephone number is 571-270-1227. The examiner can normally be reached on M-F 7.00am to 4.30 pm (5-4-9). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jayesh Patel
06/18/07
JP
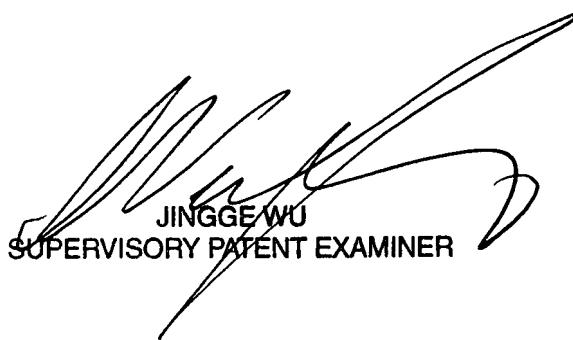
JINGGE WU
SUPERVISORY PATENT EXAMINER